



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,634	02/16/2006	Goran Sundholm	U 016146-6	2720
140	7590	03/26/2008		
LADAS & PARRY LLP 26 WEST 61ST STREET NEW YORK, NY 10023			EXAMINER GORMAN, DARREN W	
			ART UNIT	PAPER NUMBER
			3752	
			MAIL DATE	DELIVERY MODE
			03/26/2008 PAPER	

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/568,634

**Applicant(s)**

SUNDHOLM ET AL.

**Examiner**

Darren W. Gorman

**Art Unit**

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 February 2006 (w/ preliminary amend.).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 02/16/2006
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The IDS filed on February 16, 2006 is hereby acknowledged and has been placed of record. Please find attached a signed copy of the PTO 1449.

### ***Drawings***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference characters not mentioned in the description: Reference numbers “181” and “184” shown in Figure 1 and reference numbers “12”, “22” and “23” shown in Figure 2 are not found in the specification.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

3. The disclosure is objected to because of the following informalities: Claim numbers are specifically referenced throughout pages 1 and 2 of the specification as filed. Specific references to claim numbers in the specification should be avoided since the actual scope of the individual claims may change during prosecution of the application prior to issue and publication of a patent granted from the application.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, on line 4, the recitation, “the orifice of the duct” lacks antecedent basis.

Further regarding claim 1, on line 5, the recitation, “when necessary” renders the claim unclear in view of the disclosure. As understood by the Examiner, if the first spray head 2 is activated, then fire extinguishing medium is necessarily flowing through conduits 14 and 13 and into the cylinder space 10 of the actuator assembly 6 as shown in Figure 2, thus opening the shutter element 5 whenever the first spray head is activated. The recitation, “when necessary”

seems to imply that only sometimes does the shutter element open when the first spray head is activated.

Further regarding claim 1, on lines 9-10, the recitation, "when necessary" again renders the claim unclear in view of the disclosure. As understood by the Examiner, if the shutter element 5 is closed, then the flow of extinguishing medium through conduits 14 and 13 has necessarily been stopped, thus spraying through the first spray head would also necessarily be stopped. The recitation, "when necessary" seems to imply that only sometimes does the spraying through the first spray head stop when the shutter element is closed.

Regarding claim 3, on lines 4-6, the recitation, "and that the passage is closed by the shutter element typically when the supply of medium to the first spray head is stopped" renders the claim unclear in view of the disclosure. Similarly with respect to claim 1, as understood by the Examiner, if the flow of extinguishing medium to the first spray head is stopped, then the shutter element 5 necessarily closes due to the lack of extinguishing medium pressure acting on the actuator 6. The word, "typically" seems to imply that only sometimes does the shutter element close when the supply of medium to the first spray head is stopped.

Regarding claim 4, on lines 2-3, the recitation, "typically using a heat sensitive element, such as an ampoule" is indefinite. The word, "typically" and the phrase, "such as" both render the claim indefinite because it is unclear whether the limitations following "typically" and "such as" are part of the claimed invention. See MPEP § 2173.05(d).

Further regarding claim 4, on line 4, the recitation, "and/or" renders the claim unclear in view of the disclosure. As understood by the Examiner, if an impulse (ampoule burst) is obtained from the heat sensitive element 20, then the passage 18, 14, 13 for the medium to both

the first spray head 2 and the actuator 6 of the shutter element 5 is closed. The recitation, “and/or” seems to imply that the flow of medium could still continue to one without continuing to the other, which is not possible based on the disclosure.

Further regarding claim 4, on line 4, the recitation, “the actuator” lacks antecedent basis.

Further regarding claim 4, on line 6, the recitation, “e.g. when the ampoule bursts” is indefinite. The transitional phrase, “e.g.” renders the claim indefinite because it is unclear whether the limitation following “e.g.” is part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 5, on lines 5 and 8, the recitation, “especially a spring element” is indefinite. The word, “especially” renders the claim indefinite because it is unclear whether the limitation following “especially” on both lines 5 and 8 is part of the claimed invention. See MPEP § 2173.05(d).

Regarding claim 6, on lines 3-4, the recitation, “the orifice of the duct” lacks antecedent basis.

Regarding claim 8, on line 3, the recitation, “the first spray head” essentially lacks antecedent basis since claim 6 recites “at least one spray head”, without limiting the “at least one spray head” to “a first spray head”.

Regarding claim 9, on line 4, the recitation, “when necessary” renders the claim unclear in view of the disclosure. As understood by the Examiner, an impulse from the temperature monitoring device 20 (essentially when the ampoule bursts), necessarily causes the shutter element 5 to be moved to the closed position. The recitation, “when necessary” seems to imply that the shutter element does not necessarily close if the temperature monitoring device creates an impulse, which is not possible based on the disclosure.

Regarding claim 10, on lines 3-4, the recitation, “preferably in the vicinity of the orifice of the duct” renders the claim indefinite. The word, “preferably” renders the claim indefinite because it is unclear whether the limitation following “preferably” is part of the claimed invention. See MPEP § 2173.05(d).

Further regarding claim 10, on line 4, the recitation, “the impulse” lacks antecedent basis.

Further regarding claim 10, on lines 4-5, the recitation, “the temperature monitoring device” lacks antecedent basis.

Regarding claim 11, on line 2, the recitation, “the temperature monitoring device” lacks antecedent basis.

Further regarding claim 11, on line 4, the recitation, “the second spray head” lacks antecedent basis.

Further regarding claim 11, on lines 4 and 6, the recitation, “and/or” renders the claim unclear in view of the disclosure. As understood by the Examiner, if the ampoule 20 bursts, then the second valve element 16 necessarily closes the passage 18, 14, 13 of the medium to both the first spray head 2 and the actuator 6 of the shutter element 5. The first recitation of “and/or” on line 4 seems to imply that the passage for the medium to the second spray head could occur without necessarily closing the passage to the first spray head and actuator, which is not possible based on the disclosure. The second recitation of “and/or” on line 6 seems to imply that the flow of medium could still continue to one of the first spray head and the actuator without continuing to the other, which is not possible based on the disclosure.

Further regarding claim 11, on lines 5-6, the recitation, "the first spray head" essentially lacks antecedent basis since claim 6 recites "at least one spray head", without limiting the "at least one spray head" to "a first spray head".

***Allowable Subject Matter***

6. Claims 1-11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patents to Farrell, O'Donnell, Clark, and Washington et al., are cited as of interest.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on 571-272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Darren W Gorman/  
Primary Examiner, Art Unit 3752

/D. W. G./  
Primary Examiner, Art Unit 3752